

# Notice of Allowability

Application No.

10/549,598

Examiner

Ngoc-Yen M. Nguyen

Applicant(s)

YOSHIKAWA, KOUJI

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Jennifer Leach on October 10, 2006.

The application has been amended as follows:

1. (Currently amended) A method for preparing disodium paraperiodate, characterized in that a pH of a reaction mixture which is obtained by reacting sodium iodate, iodic acid or a mixture thereof with sodium hypochlorite using in the presence of sodium hydroxide is adjusted to the range between 5 and 10.

2. (Original) The method according to claim 1, which is characterized in that sodium iodate, iodic acid or a mixture thereof is reacted with sodium hypochlorite in the presence of sodium hydroxide to obtain a reaction mixture, and then the pH of the reaction mixture is adjusted to the range between 5 and less than 7.

3. (Original) The method according to claim 1, wherein the pH of the reaction mixture is adjusted to the range between 5 and less than 7.

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4. (Currently amended) The method according to claim 1, wherein the amount used of sodium hypochlorite is 1\_mol to 3\_mols per 1\_mol of iodide ion in the sodium iodate, iodic acid or a mixture thereof, and the amount used of sodium hydroxide is 0.5 mol or more per 1\_mol of sodium iodate and 1.5\_mol or more per 1\_mol of iodic acid.

5. (Currently amended) The method according to claim 4, wherein the amount used of sodium hydroxide is 0.8\_mol or more per 1\_mol of sodium iodate, and 1.8\_mols or more per 1\_mol of iodic acid.

6. (Currently amended) The method according to claim 4 or 5, wherein the amount used of sodium hydroxide is 3\_mol or less per 1\_mol of sodium iodate, iodic acid or the sum of them.

7. (Original) The method according to claim 6, wherein the amount of sodium hydroxide is 1 mol or more per 1 mol of sodium iodate, and 2 mols or more per 1 mol of iodic acid.

8. (Original) The method for preparing according to claim 1, wherein the sodium iodate, iodic acid or a mixture thereof is the sodium iodate, iodic acid or a mixture thereof obtained by reacting sodium metaperiodate, periodic acid or a mixture thereof as oxidant with organic compounds.

9. (Currently amended) ~~The A method according to claim 1 or 2, wherein~~  
~~comprising an adding step of~~ for producing for sodium metaperiodate, which comprising  
reacting sodium iodate, iodic acid or a mixture thereof with sodium hypochlorite  
in the presence of sodium hydroxide to obtain a reaction mixture and adjusting the pH of  
the reaction mixture to the range between 5 and 10 to form disodium paraperiodate, and  
~~a pH of a reaction mixture obtained by contacting the disodium paraperiodate~~  
~~with an acid is adjusting~~ to adjust the pH of the resulting mixture to the range between 2  
and 2.5.

10 (New). The method according to claim 9, wherein pH of the reaction mixture is  
adjusted to the range between 5 and less than 7 to form disodium paraperiodate.

The following is an examiner's statement of reasons for allowance: the prior art  
does not teach or suggest a process for producing disodium paraperiodate by  
controlling the pH of a reaction mixture which is obtained by reacting sodium iodate,  
iodic acid or a mixture thereof with sodium hypochlorite in the presence of sodium  
hydroxide to a range of between 5 and 10. Dijt et al (6,017,506) is considered as the  
closest prior art, Dijt discloses a similar process in which an iodine-containing  
compound is contacted with an alkali metal hydroxide and an alkali metal hypochlorite in  
the presence of Na<sup>+</sup> ions to produce sodium paraperiodate Na<sub>3</sub>H<sub>2</sub>IO<sub>6</sub> (trisodium  
paraperiodate), not the required disodium paraperiodate Na<sub>2</sub>H<sub>3</sub>IO<sub>6</sub>.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman can be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 or (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.

  
Ngoc-Yen M. Nguyen  
Primary Examiner  
Art Unit 1754

nmn  
October 16, 2006